

Case No. C7520(V)

REMARKS

Applicants wish to thank the Examiner for her review of the present patent application.

I. Rejection Under 35 USC §112/101

The Examiner has rejected claims 1-15 and alleges that the claims do not set forth any steps involved in a method or process. Moreover, the examiner alleges that the claims are rejected under 35 USC §101 because they do not recite any steps involved in a process.

Notwithstanding the Examiner's conclusions, Applicants have amended the claims in order to expedite the prosecution of the present patent application and to further business objectives. In view of this, it is respectfully submitted that the amendments made render the claims consistent with the requirements of 35 USC §101 and §112. Thus, Applicants respectfully request that the rejections to the claims under 35 USC §112 and §101 be withdrawn and rendered moot.

II. Rejection Under 35 USC §112

The Examiner has rejected claims 1-16 under 35 USC §112, second paragraph as being indefinite for failing to particularly point out distinctly claimed subject which Applicants regard as the invention. Particularly, the Examiner points out that claims 1 and 16 include a parenthetical phrase and that claims 1, 15 and 16 cite words that appear in quotes. In view of the Examiner's comments, Applicants have amended the claims to delete the parenthetical phrases and to remove all quotes. In this regard, it is

Case No. C7520(V)

respectfully submitted that the rejection made under 35 USC §112 should be withdrawn and rendered moot.

III. Rejection Under 35 USC §103

The Examiner has rejected claims 1 to 14 under 35 USC §103 as being unpatentable over Perry et al., U.S. Patent No. 5,534,172 (hereinafter '172). In the rejection, the Examiner mentions, in summary, that the '172 reference discloses an aqueous-base cutting fluid composition which contains at least one anti-oxidant, one or more surfactant, at least one lubricant, and water. Furthermore, the Examiner mentions that the surfactant may be a polysiloxane surfactant having an HLB of 10 or more so that it is water soluble. Even further, the Examiner mentions that the '172 reference teaches that the lubricant component is preferably a polyhydric alcohol like ethylene glycol, propylene glycol and glycerin. In view of his, the Examiner believes that the cutting fluid of the '172 reference encompasses the liquid composition of the present claims and that the rejection made under 35 USC §103 is warranted.

Notwithstanding the Examiner's apparent position to the contrary, it is the Applicants' position that the presently claimed invention is patentably distinguishable from the above described for at least the following reasons.

As set forth in independent claim 1, the present invention is directed to a method for lubricating a conveyor belt surface comprising the steps of discontinuously applying a liquid composition suitable for producing a lubricant film on the conveyor belt surface, and producing a film on the conveyor belt surface. The composition which is applied to the conveyor belt surface is at most 95% by weight of an aqueous phase, and suitable for the continuous application to the conveyor belt surface.

Case No. C7520(V)

The invention of claim 1 is further defined by the dependent claims which claim, among other things, the amount of liquid composition applied in a given time period, the presence of a silicon oil within the liquid composition, the aqueous phase and silicone oil amounts, the presence of vegetable oils, mineral oils or mixtures thereof within the liquid composition, the presence of a polyhydric alcohol, the amount of polyhydric alcohol, the presence of PTFE, the presence of a surfactant, and the use of a flicker non-contact applicator within the method. Independent claim 16 is directed to a method of lubricating a conveyor belt which includes the step of formulating a liquid composition suitable for producing a dry lubricant film.

In contrast, the '172 reference is directed to a cutting fluid that is typically used when making a rotatable drum-like substrate by machining the surface of a pipe. The cutting fluid of the '172 reference is used during such a process to cool, lubricate and clean the substrate so that a photo conductive layer may be applied thereon. The present invention, on the other hand, is directed to a method for lubricating the surface of a conveyor belt. The conveyor belt of the present invention are those which are generally used for the transport of glass, plastic or cardboard containers and especially plastic containers made from polyethylene terephthalate or polycarbonate, as well as containers which are metal cans. There is no working whatsoever of a pipe in the present invention.

In addition to the above, the '172 reference does not disclose nor suggest that a dry lubricant film can be applied to the surface of a conveyor belt. Moreover, the '172 reference does not teach, suggest or disclose that the lubricant compositions do not have to be fed continuously onto a conveyor belt. Thus, the teaching of a cutting fluid, as set forth in the '172 reference, to be applied to a pipe that is to be worked into a rotatable drum-like substrate which is to support a photoconductive layer in, for example, a laser printer does not teach to one of ordinary skill in the art that a lubricant

Case No. C7520(V)

composition comprising at most 95% by weight of an aqueous phase may be applied to a conveyor belt in a discontinuous fashion to produce a thin film and appropriate lubricity. In this regard, it is clear that all the important and critical limitations set forth in the presently claimed invention are not found in the '172 reference. Therefore, the Examiner has not established a *prima facie* case of obviousness as required under 35 USC §103. In view of this, Applicants respectfully request that the obviousness rejection be withdrawn and rendered moot.

#### IV. Rejection Under 35 USC §103

The Examiner has rejected claim 16 under 35 USC §103 as being unpatentable over Stanton, U.S. Patent No. 4,604,220 (hereinafter '220). In the rejection, the Examiner mentions, in summary, that the '220 reference discloses a conveyor cleaner-lubricant composition comprising up to 95% by weight of water wherein the composition may be used for lubricating a continuously moving conveyor. In view of this, the Examiner believes that the limitations of claim 16 are met by the teachings of the '220 reference and the rejection made under 35 USC §103 is warranted.

Notwithstanding the Examiner's apparent position to the contrary, it is the Applicants' position that the presently claimed invention is patentably distinguishable from the above described for at least the following reasons. As set forth in independent claim 16, a method is described for lubricating a conveyor belt wherein the method comprises the step or formulating a liquid composition suitable for producing a dry lubricant film on a surface by discontinuously applying the liquid composition. Moreover, the claim sets forth that the liquid composition may be applied to the conveyor belt as a thin dry lubricant film. In contrast, the '220 reference, particularly at Examples 8 and 13 to 16, show that the composition set forth in the '220 reference must be significantly diluted with water (e.g., a volumetric ratio of 1 to 200) for providing

Case No. C7520(V)

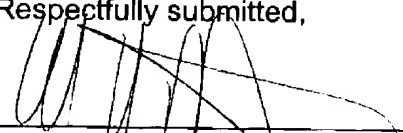
an excellent cleaner lubricant. In this regard, it follows that the water concentration of the diluted cleaner lubricant set forth in the '220 reference is much higher than 95% by weight water. The liquid composition used according to the present invention does not need to be diluted and in fact should not be diluted so as to guarantee the formation of a dry lubricant film. Thus, all of the important and critical limitations set forth in the presently claimed invention are not set forth in the '220 reference. To this end, the Examiner has not established a *prima facie* case of obviousness as required under 35 USC §103. Applicants, therefore, respectfully request that the obviousness rejection be withdrawn and rendered moot.

For at least the reasons set forth above, Applicants submit that all claims of record are now in condition for allowance. Reconsideration and favorable action are earnestly solicited.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version With Markings To Show Changes Made."

In the event the Examiner has any questions concerning the instant application, she is kindly invited to contact the undersigned at her earliest convenience.

Respectfully submitted,



Edward A. Squillante, Jr.  
Attorney for Applicant(s)  
Reg. No. 38,319

EAS:pod  
(201) 840-2925

Case No. C7520(V)

**VERSION WITH MARKINGS TO SHOW CHANGES MADE****In the claims:**

Please amend claims 1-16 as follows:

1. (Amended) ~~Use of a liquid~~ A method for lubricating a conveyor belt surface comprising the steps of (a) discontinuously applying a liquid composition suitable for producing a "dry" lubricant film (as defined herein) on a surface by discontinuous application of said composition, for lubricating a conveyor belt, the conveyor belt surface,  
said composition comprising at most 95% by weight of an aqueous phase and also being suitable for continuous application to ~~a the~~ conveyor belt surface, with or without further dilution with water, to remove incidental spillages of extraneous material from the conveyor belt surface without loss of the required lubricity, and (b) producing a film.
2. (Amended) ~~Use according to~~ The method for lubricating a conveyor belt surface according to claim 1 wherein the conveyor belt is a single conveyor belt and wherein an amount of 2-20 ml of the liquid composition is fed every 20 minutes to said belt.
3. (Amended) ~~Use according to~~ The method for lubricating a conveyor belt surface according to claim 1, wherein the liquid composition comprises a silicone oil and the aqueous phase.
4. (Amended) ~~Use according to~~ The method for lubricating a conveyor belt surface according to claim 3, wherein the liquid composition comprises:  
(c) 10-95% by weight of the aqueous phase; and

Case No. C7520(V)

(d) 1-55% by weight of the silicone oil.

5. (Amended) ~~Use according~~ The method for lubricating a conveyor belt surface according to claim 1, wherein the liquid composition comprises an oil selected from vegetable oils, mineral oils and mixtures thereof.

6. (Amended) ~~Use according~~ The method for lubricating a conveyor belt surface according to claim 5, wherein the liquid composition additionally comprises the aqueous phase.

7. (Amended) ~~Use according~~ The method for lubricating a conveyor belt surface according to claim 5, wherein the liquid composition comprises:

- 10-90% by weight of the oil selected from vegetable oils, mineral oils and mixtures thereof; and
- 10-50% by weight of water.,

8. (Amended) ~~Use according~~ The method for lubricating a conveyor belt surface according to claim 1, wherein the liquid composition comprises a polyhydric alcohol.

9. (Amended) ~~Use according~~ The method for lubricating a conveyor belt surface according to claim 8, wherein the polyhydric alcohol is selected from the group consisting of glycerine, propylene glycol, and ethylene glycol.

10. (Amended) ~~Use according~~ The method for lubricating a conveyor belt surface according to claim 8, wherein the polyhydric alcohol is present in the liquid composition at a concentration of at least 20% by weight.

Case No. C7520(V)

11. (Amended) ~~Use according to~~ The method for lubricating a conveyor belt surface according to any of claims 1, wherein the liquid composition includes an aqueous phase, and wherein polytetrafluoroethylene (PTFE) resin is present in said aqueous phase in the form of an ultrafine particle dispersion of the resin.

12. (Amended) ~~Use according to~~ The method for lubricating a conveyor belt surface according to claim 11, wherein the PTFE constitutes 2-25% by weight of the liquid composition.

13. (Amended) ~~Use according to~~ The method for lubricating a conveyor belt surface according to any of claim 1, wherein the liquid composition includes a surfactant material selected from the group consisting of anionic surfactants, nonionic surfactants, cationic surfactants, amphoteric surfactants, and mixtures thereof.

14. (Amended) ~~Use according to~~ The method for lubricating a conveyor belt surface according to claim 13, wherein the surfactant material is present in the composition at a concentration of 0.1-10% by weight.

15. (Amended) ~~Use according to any of~~ The method for lubricating a conveyor belt surface according to claims 1, wherein the liquid composition is applied onto the surface of a conveyor belt using a "flicker" non-contact applicator, containing

- a motor-driven rotating tubular brush which ~~pick~~ pick up said liquid composition from a sump via ~~transfer~~ transfer rollers, and
- a steel plate mounted against the brush which flicks the bristles as the brush rotates, to generate a mist of droplets of liquid material directed onto the surface of the conveyor belt.



Case No. C7520(V)

16. (Amended) Method of lubricating a conveyor belt, comprising the steps of

- (iii) formulating a liquid composition suitable for producing a "dry" lubricant film (as defined herein) on a surface by discontinuous application of said composition, said composition comprising up to 95% by weight of an aqueous phase and also being suitable for continuous application to a conveyor belt surface, with or without further dilution with water, to remove incidental spillages of extraneous material from the conveyor belt surface without loss of the required lubricity, and
- (iv) applying said liquid composition to the conveyor belt as a thin "dry" lubricant film.